

Research Paper: The Relationship Between Psychological Hardiness and Social Support in Women With Breast Cancer



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ABSTRACT

Background: Psychological hardiness and social support are two necessary health-elevating factors that strengthen individuals to remain both psychologically and physically healthy despite encountering negative life events.

Objectives: This study aimed at investigating the relationship between psychological hardiness and social support in women with breast cancer.

Materials and Methods: This descriptive study was conducted on 110 women with breast cancer in the Shafa Hospital of Ahvaz, Iran in 2018-2019. The personal/demographic/illness questionnaire, Kobasa Psychological Hardiness Questionnaire, and Multidimensional Scale of Perceived Social Support were research tools. Data were analyzed by the one-sample t-test, analysis of variance, and Pearson correlation at a significance level of $P < 0.05$.

Results: There was a significant positive correlation between perceived social support and psychological hardiness ($r = 0.045$; $P < 0.05$) and perceived social support and commitment ($r = 0.469$; $P < 0.05$). Also, there was a positive and significant correlation between perceived social support and control ($r = 0.429$; $P < 0.05$) and perceived social support and challenging ($r = 0.266$; $P < 0.05$).

Conclusion: The results showed that psychological hardiness and social supports have a significant relationship; therefore, healthcare providers can use these personality attributes in their care plans for better coping strategies. Perceived social support and psychological hardiness can be effective in progressing the patients' health and should be considered as effective moderating factors in their therapy process.

Keywords:

Social support, Psychological hardiness, Breast cancer

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Introduction

Considering the reports published by the World Health Organization, the universal load of cancer has duplicated throughout the last 30 years [1]. Breast cancer is one of the current diseases worldwide caused by the rare and uncontrollable duplication of cells due to different factors, such as genetic, glandular, and environmental factors [2]. Breast cancer ranks third in terms of the burden of disease and is the major cause of death by more than 400000 deaths (ranking fifth) among Iranian women [3, 4]. Exposure to cancer can directly affect a person's several aspects of life [5]. The diagnosis of breast cancer and its therapeutic process is an extremely distressing and troublesome experience for patients [6, 7]. Women with breast cancer, especially in developing countries, are at greater risk for physical and mental health problems; the detection of cancer may be associated with more emotional and physical disorders [8].

It has been demonstrated that patients with breast cancer are exposed to psychiatric symptoms and psychosocial issues, which may cause mental and social disorders affecting their lives [9-11]. Personality characteristics of women with breast cancer, like psychological hardiness, determine the side effects of stressful life events [11-13]. Psychological hardiness consists of three basic interrelated hypothetical components. Hardy people are easily committed to their lives, believe that they have some control over the causes and solutions of life obstacles, and view changes in life and adaptive requests as challenges and chances for development rather than menaces [14].

Hardiness traits among females with breast cancer are a buffer in perceived stress [15]. People with a high level of hardiness are possibly more capable of enduring the negative results of life stressors. Their resistance to illness likely results from perceiving life changes as less stressful events or from having more capacity to cope with life changes [13]. Hardiness has a positive relationship with mental welfare [16] associated with using the problem-oriented comparative strategies [17] and attention to positive events of life [12]. Moreover, Aflakseir et al. highlighted the significant role of psychological hardiness and perceived social support in the personal growth of breast cancer survivors [13].

Social support is another key concept, which is related to mental health and is conceptualized as individuals' cognitive assessment of the quantity of support provided to them by the environment and others. Social support is very impressive in an understanding of symptoms severity, as well as the quality of life of the patient because the individual's quality of confronting the stress is extremely affected by the

methods of receiving social support [9, 18]. Social support theorists believe that social support focuses on individuals' cognitive evaluations of their immediate environment and the level of certainty about the approachability of help and support [18]. Although there are significant individual differences between patients' opposition to the disease symptoms and adjustment to its outcomes, psychological distress at the primary stages is accompanied by levels of pain and fatigue, performance status, disease impact on life, life events, and perceived protection. Therefore, seeking social support is one of the important methods for confronting psycho-social stressful factors [9].

Several studies showed a positive and significant relationship between the level of family support and adaptation to cancer [8, 9, 19]. Moreover, social support has been reported as one of the determinants of cancer control in women with breast cancer in Iran [20]. Furthermore, supportive actions are effective in ameliorating the general health status and quality of life of patients with cancer [8].

Behavioral factors act as a part of the development of cancer, but psychiatric intricacies may appear in patients with cancer due to various psychological effects that have neurophysiologic and conceptual traits. Such psychiatric complexities and psychological challenges destroy adaptation abilities, and decrease the quality of life of the patient, and also negatively affect the flow of disease and response to treatment [10]. Hence, as noted above, the aim of this study was to survey the relationship between psychological hardiness and social support in women with breast cancer.

The internal factors, including commitment (vs. alienation), control (vs. powerlessness), and challenge (vs. need for security) help individuals not only remain strong under stressful conditions but also perform better under stressful situations [21, 22]. Studies have shown that individuals with high levels of hardiness are more likely to employ effective coping strategies to deal with problems, compared with those with low levels of hardiness.

Materials and Methods

This correlational research was conducted on 110 married women with breast cancer who referred to a hematology/oncology ward of Shafa Hospital, Ahvaz in 2018-2019. The sample size was determined using the Morgan table. This table can be used when there is no access to community variance. The purpose of the study was explained to all patients and they presented an agreement before their participation in the study. Moreover, they were assured of data confidentiality and all the questionnaires were kept nameless. The research ceremonial follows the ethical guidelines

of the declaration of Helsinki (1975). The research at the beginning selected the qualified individuals based on the inclusion criteria, including being diagnosed with breast cancer, the age of over 18 years, the ability to read and write, being informed of their cancer diagnosis, and no other medical illnesses. Exclusion criteria included being exhausted during completing questionnaires and feeling of weakness.

The demographic and disease characteristics questionnaire consisted of three items, such as age, duration of illness, and occupational status, as well as the Kobasa Psychological Hardiness Questionnaire [3] and the Multidimensional Scale of Perceived Social Support (MSPSS) were the tools used in this study (Table 1).

The Kobasa Psychological Hardiness Questionnaire

Kobasa in 1988 used this questionnaire to measure psychological hardiness [21]. This questionnaire consists of 50 items and the answers are rated on a 3-point Likert scale ranging from 0 (completely false) to 3 (completely true). Items 6 to 21 and 28 to 50 are scored reversely. The questionnaire includes three subscales of commitment, control, and challenge. Higher scores indicate more hardiness and vice versa. Its internal validity was obtained 53.317 using Bartlett's Chi-Square test, which was a desirable validity [11]. In Iran, Ghorbanifar evaluated the reliability of this questionnaire and demonstrated that the correlation coefficient of control, commitment, and challenge was 0.70, 0.52, and 0.52, respectively [11]. Also, its reliability was approved with the Cronbach alpha coefficient of 0.88 in this study.

The Multidimensional Scale of Perceived Social Support (MSPSS)

The MSPSS was used to measure the level of family support. The scale was developed by Zimet et al. in 1988 to assess social support perceived by the family, friends, and important persons in life [22]. This scale consisted of 12 items and three subscales, including family (items 3, 4, 8, and 11), friends (items 6, 7, 9, and 12) and others (items 1, 2, 5, and 10). The scale is scored on a 5-point Likert scale from entirely agree to entirely disagree. Bruwer et al. using Cronbach's alpha achieved the internal consistency of 86 to 90% for the subscales the MSPSS and 86% for the whole scale [23]. In Iran, the obtained Cronbach's alpha for the social support received by the family, friends, and others was 89%, 86% and 82%, respectively [24]. Also, in this study, its reliability was approved using the Cronbach alpha coefficient of 78%, 66%, and 62% for three dimensions of social support received by the family, friends, and others, respectively. Data were analyzed using SPSS V. 23 software and descriptive and inferential statistics (one-sample t-test and Pearson correlation coefficient). $P \leq 0.05$ was considered as significant.

Results

The Mean±SD of age of the patients with breast cancer was 46.80±4.08, ranging from 28-58 years. Furthermore, the average number of unemployed women was more than employed women with breast cancer.

According to Table 2, psychological hardiness among women with breast cancer with a Mean±SD of 3.2±0.50 was moderate level, the commitment, control, and challenging

Table 1. Demographic characteristics of the patients with breast cancer

Variables		Mean±SD
Age (y)		46.80±4.08
Duration of illness (y)		4.45±0.78
Occupational status	Employed	23.4±9.34
	Unemployed	74.04±17.34

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Table 2. Descriptive statistics related to psychosocial hardship and its components

Variables	Mean±SD	T	Condition
Psychological hardiness	3.2±0.50	0.41	Moderate
Commitment	2.85±0.66	2.90-	Poor
Control	3.22±0.46	2.72	Good
Challenging	2.73±0.57	4.18	Relatively good

AJNPP

Table 3. Descriptive statistics related to social support and its components

Variables	Mean±SD	T	Condition
Friend support	1.2±0.9	2.2	Good
Family support	3.4±0.6	2.2	Good
Support by others	2.4±0.34	4.4-	Poor

AJNPP

Table 4. The correlation matrix of psychological hardiness and its components with social support

Variables	Psychological Hardiness	Social Support	Sig.
Psychological hardiness	-	0.045	0.001
Social support	0.045	-	0.001

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Table 5. The correlation matrix of psychological hardiness and its components with social support

Variables	Social Support	Commitment	Control	Challenging	Sig.
Social support	-	0.469	0.429	0.266	0.001
Commitment	0.469	-			0.001
Control	0.429		-		0.001
Challenging	0.266			-	0.001

AJNPP

components were at weak, good, and relatively good levels, respectively.

Table 3 presents the descriptive statistics (Mean±SD and one-sample t-test) to indicate social support status. The t value of greater than 1.96 indicates that the variable is in good condition, the t value of between 1.96 and -1.96 represents the moderate condition, and the t value of less than -1.96 indicates its poor condition. According to Table 3, it can be said that social support among women with breast cancer in terms of perceived support from friends and family was in good condition, whereas had a poor level in terms of support by others.

Hypothesis 1: There is a significant relationship between psychological hardiness and social support among women with breast cancer.

According to Table 4, the relationship between psychological hardiness and social support of women with breast cancer was significant ($P=0.05$). Therefore, hypothesis one was confirmed. Meaning that the higher the level of perceived social support, the higher the psychological hardiness of women with breast cancer.

Hypothesis 2: There is a significant relationship between psychological hardiness components and social support among women with breast cancer.

According to the results of Table 5, the relationship between social support and psychological hardiness components among women with breast cancer was significant at the level of 0.001; therefore, there was a positive significant relationship between social support and the components of commitment, control, and challenging of psychological hardiness in women with breast cancer. Thus, hypothesis two was confirmed.

Discussion

The result of this study showed a significant relationship between psychological hardiness and perceived social support, which prevents psychological distress to deal with stress among women with breast cancer. It means that the higher the level of perceived social support, the higher the psychological hardiness of women with breast cancer, which was consistent with several other studies [10-15], and no study was found inconsistent with this finding.

Abdollahi et al. showed the significance of hardiness in decreasing perceived stress impacts on hope and reported its clinical implications for health practitioners [15]. Patients with high hardiness are more able to cope with the negative outcomes of life (illness, bad events, accidents, etc.). These individuals' hardiness likely results from the perception of life changes as less stressful or having a higher capacity to cope with life changes. Several studies have indicated that psychological hardiness and social support are significant psychosocial factors for illness recovery [13-18].

Hardiness provides flexibility and protects public health. Therefore, people who have hardiness are physically and mentally healthy [4]. Hardy individuals reported less anxiety in response to the stressors of life [16]. There was a significant but inverse correlation between psychological hardiness and mental health score. Psychological hardiness as an internal resistance resource reduces the detrimental effects of stress and prevents the improvement of physical and psychological disorders [14]. Kakpour and Teymouri found that hardy women are more likely to attend treatment sessions than others [25, 26]. The people with high psychological hardiness compared with those who have lower psychological hardiness are less likely to be physically or mentally damaged in response to life pressures. Psychological hardiness increases the tolerance level of individuals with breast cancer [27].

Social support is a fundamental factor regarding the care for cancer patients. It creates a social interaction starting with communication making an empathic relationship and eventually leads to a welfare circle for the patient. Increasing self-reliance and capability or competency to carry out essential tasks is considered as modifiers of social support. Possibly, the interpersonal relationship helps people to cope with the condition and causes a good sense [8]. In a study, 10 questionnaires collected from 208 studies demonstrated a positive and significant relationship between the level of family support and the type of disease control. Among the components of social support, family support has been able to anticipate the variance of psychological health at a remarkable level that should be considered in the course of the amelioration and treatment of breast cancer. Social support has a significant effect on the development, treatment, and improvement of breast cancer [28].

One of the limitations of this study was studying a random sample of women with cancer of the Shafa Hospital in Ahvaz that limits the generalizability of the results to all patients with breast cancer. Another limitation was using of self-reported questionnaires for data collection. The small sample size of the included studies was another potential limitation of this study.

Conclusion

The findings showed that psychological hardiness and social support are two important health factors in women with breast cancer. Also, considering the relationship between psychological hardiness and perceived social support, it is suggested to establish interventional programs and counseling programs for the family members of the patients to provide more support and promote psychological hardiness of the patients to reduce their psychological distress.

Ethical Considerations

Compliance with ethical guidelines

All ethical principles were considered in this article. The participants were informed about the purpose of the research and its implementation stages; they were also assured about the confidentiality of their information. Moreover, they were allowed to leave the study whenever they wish, and if desired, the results of the research would be available to them.

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Authors' contributions

All authors contributed in designing, running, and writing all parts of the research.

Conflict of interest

The authors declared no conflict of interest.

References

- [1] World Health Organization (WHO). Global cancer rates could increase by 50% to 15 million by 2020. [Internet]. 2016 [Updated 2016 February 1]. Available from: <http://www.who.int/mediacentre/news/releases/2003/pr27/en/>
- [2] Sarafino E. Health psychology: Bio psychosocial interactions. United State: John Wiley & Sons, Inc.; 2011.
- [3] Ministry of Health and Medical Education. Annual Report on Cancer Registration in Iran. Center for Disease Control, non-communicable diseases, cancer management. Tehran: Ministry of Health and Medical Education; 2009.

- [4] Naeini EE, Zaker BS, Peyvandy P. The effectiveness of stress management training on hardiness in patients with breast cancer. *Abnormal and Behavioural Psychology*. 2016; 2(2):1000115. [DOI:10.4172/2472-0496.1000115]
- [5] Sarenmalm EK, Browall M, Persson LO, Fall-Dickson J, Gaston-Johansson F. Relationship of sense of coherence to stressful events, coping strategies, health status, and quality of life in women with breast cancer. *Psychooncology*. 2013; 22:20-7 [DOI:10.1002/pon.2053] [PMID]
- [6] Morel N, Dayan J, Piolino P, Viard A, Allouache D, Noal S, et al. Emotional specificities of autobiographical memory after breast cancer diagnosis. *Consciousness and Cognition*. 2015; 35:42-52. [DOI:10.1016/j.concog.2015.04.016] [PMID]
- [7] Tamagawa R, Giese-Davis J, Specia M, Doll R, Stephen J, Carlson LE, et al. Trait mindfulness, repression, suppression, and self-reported mood and stress symptoms among women with breast cancer. *Journal of Clinical Psychology*. 2013; 69(3):264-77. [DOI:10.1002/jclp.21939] [PMID]
- [8] Alizadeh S, Khanahmadi S, Vedadhir A, Barjasteh S. The Relationship between resilience with self-compassion, social support and sense of belonging in women with breast cancer. *Asian Pacific Journal of Cancer Prevention*. 2018; 19(9):2469-74. [DOI:10.22034/APJCP.2018.19.9.2469]
- [9] Taheria A, Ahadib H, Lotfi Kashanic F, Ahmadzade Kermanid R. Mental hardiness and social support in life satisfaction of breast cancer patients. *Procedia - Social and Behavioral Sciences*. 2014; 406-9. [DOI:10.1016/j.sbspro.2014.12.397]
- [10] İzci F, İlgün AS, Fındıklı E, Özmen V. Psychiatric symptoms and psychosocial problems in patients with breast cancer. *Journal of Breast Health*. 2016; 12(3):94-101. [DOI:10.5152/tjbh.2016.3041] [PMID] [PMCID]
- [11] Aghajani MJ, Rahbar T, Moghtader L. [The relationship of hopefulness and hardiness with general health in women with breast cancer (Persian)]. *Journal of Guilan University of Medical Sciences*. 2018; 26(104):41-9.
- [12] Bahrami M, Mohamadirizi S, Mohamadirizi S. Hardiness and optimism in women with breast cancer. *Iranian Journal of Nursing Midwifery Research* [Internet]. 2018 [Updated 2019 August 21]. Available from: <http://www.ijnmrjournal.net/text.asp?2018/23/2/105/227105>
- [13] Aflakseir A, Nowroozi S, Mollazadeh J, Goodarzi MA. The role of psychological hardiness and marital satisfaction in predicting posttraumatic growth in a sample of women with breast cancer in Isfahan. *Iranian Journal of Cancer Prevention*. 2016; 9(4):e4080. [DOI:10.17795/ijcp-4080] [PMID] [PMCID]
- [14] Hajebi A, Emami H, Hosseinzadeh M, Khajeian A. A study of the mental health status, psychological hardiness, of the staff the Pars Special Economic State Energy Zone in Iran. *Health Scope*. 2016; 5(2):e27112. [DOI:10.17795/jhealthscope-27112]
- [15] Abdollahi A, Panahipour H, Hosseinian S, Allen KA. The effects of perceived stress on hope in women with breast cancer and the role of psychological hardiness. *Psycho-Oncology*. 2019; 28(7):1477-82. [DOI:10.1002/pon.5102] [PMID]
- [16] Reknes I, Harris A, Einarsen S. The role of hardiness in the bullying-mental health relationship. *Occupational Medicine*. 2018; 68(1):64-6. [DOI:10.1093/occmed/kqx183] [PMID]
- [17] Sarani A, Azhari S, Mazlom S, Aghamohammadian Sherbaf H. The relationship between psychological hardiness and coping strategies during pregnancy. *Journal of Midwifery and Reproductive Health*. 2015; 3(3):408-17. [DOI:10.22038/jmrh.2015.4432]
- [18] Babaeiamiri N. Predicting nurses' mental health based on their job burnout, perceived social support, and psychological hardiness. *Modern Care Journal*. 2016; 13(2):e8856. [DOI:10.17795/modernc.8856]
- [19] Moghaddam Tabrizi F, Alizadeh S. Family intervention based on the focus program effects on cancer coping in Iranian breast cancer patients: A randomized control trial. *Asian Pacific Journal of Cancer Prevention*. 2018; 19(6):1523-8. [DOI:10.22034/APJCP.2018.19.6.1523] [PMID] [PMCID]
- [20] Farhadifar F, Taymoori P, Bahrami M, Zarea S. The relationship of social support concept and repeat mammography among Iranian women. *BMC Women's Health*. 2015; 15:92. [DOI:10.1186/s12905-015-0253-7] [PMID] [PMCID]
- [21] Kobasa SC. Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology*. 1979; 37(1):1-11. [DOI:10.1037/0022-3514.37.1.1] [PMID]
- [22] Zimet GD, Dahlem NW, Zimet SG, Farley GK. The multidimensional scale of perceived social support. *Journal of Personality Assessment*. 1988; 52(1):30-41. [DOI:10.1207/s15327752jpa5201_2]
- [23] Bruwer B, Emsley R, Kidd M, Lochner C, Seedat S. Psychometric properties of the multidimensional scale of perceived social support in youth. *Comprehensive Psychiatry*. 2008; 49(2):195-201. [DOI:10.1016/j.comppsy.2007.09.002] [PMID]
- [24] Salimi A, Joukar B, Nikpour R. Internet and communication: Perceived social support and loneliness as antecedent variables. *Psychological Studies*. 2009; 5(3):81-102.
- [25] Teymori S, Khakpor M, Momeni Mahmouei H. The relationship between hardiness and self-efficacy and personal control in cancer patients. *Journal of Torbat Heydariyeh University of Medical Sciences*. 2015; 3(1):35-42.
- [26] Hosseini SM, Mousavi T, Rafiee H, Karimi SE. The effect of social capital enhancement on quality of life, treatment compliance and pain in patients with breast cancer. *Iranian Journal of Cancer Prevention*. 2016; 9(5):e4618. [DOI:10.17795/ijcp-4618]
- [27] Moradi A, Ebrahimi ME, Rad I. The relationship between psychological hardiness, demographic variables, and mental disorders of the nursing staff at Be'sat Hospital. *Journal of Research in Medical and Dental Sciences*. 2018; 6(3):198-205.
- [28] Abadi Bavil D, Dolatian M. A survey on social support for breast cancer in Iran: A review study. *Clinical Excellence*. 2018; 7(4):48-56. <http://ce.mazums.ac.ir/article-1-377-en.html>